Model 150 VT *Ultrasonic Homogenizer*

Disruptive Force... New Power in Ultrasonic Disruption

Advanced Instrumentation with Built in High Performance & Convenience

The Model 150 VT Ultrasonic Homogenizer offers precision engineering with all the features necessary to create a total system for ultrasonic disruption. It can disintegrate most cells, bacteria, spores or tissue. It can prepare an emulsion down to 1/100 of a micron, homogenize "immiscible" liquids, accelerate enzymatic and chemical reactions, stimulate bacterial activity, disperse solids in liquids and degas liquids.

How it Works

The ultrasonic power supply transforms line voltage to high frequency 20 kHz of electrical energy. This electrical energy is transmitted to the probe where it is changed to mechanical energy. The vibrations from the probe are coupled to and intensified by the titanium tip. The probe vibrates in a longitudinal direction and transmits this motion to the titanium tip immersed in the solution. Cavitation results, in which microscopic vapor bubbles are formed momentarily and implode, causing powerful infinitesimal shock waves to radiate throughout the solution in proximity to the radiating face of the tip.

Automatic Tuning

The Model 150 VT employs a proprietary feedback system, insuring that the Ultrasonic Homogenizer is always working at its maximum efficiency regardless of the application. There is no need for constant adjustment by the operator. The percentage of ultrasonic power emitted is indicated by the output meter, enabling accurate, reproducible results.

Performance

The high powered instrument provides continuous duty operation on difficult or large scale applications. It delivers up to 150 watts to the probe and tip.

BioLogics, Inc.

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SPECIFICATIONS

Catalog No.
0-121-0001 115V / 60Hz
0-121-0002 230V / 50Hz

Variable Power: 0 - 150 Watts

Timer: 0 - 15 Minutes

Automatic Tuning: Allows easy interchange of probe tips

Pulse Mode Power: Allows sample to be processed at full power while limiting temperature rise. Essential for heat sensitive samples.

Constant Power Mode: Selectable for non-heat critical sample applications.

Probe Tips: A full range of tips and Ultrasonic Homogenizer accessories.

Dimensions
Generator
9.90"(W) x 8.75"(D) x 4.60"(H)
(25.1 x 22.2 x 11.7 cm)
Probe w/Standard Tip
3.50"(Dia.) x 8.90"(H)
(8.9 x 22.6 cm)

Temperature Range/Humidity Range
0 -40°C / 28% - 80%

Power Consumption
250 Watts

ACCESSORIES

Catalog No. 0-125-0001
SONABOX™ II Sound Abating Enclosure

Catalog No. 0-120-0005
5/32" (4.0 mm) Dia. Stepped Titanium Microtip

Catalog No. 0-120-0009
3/8" (9.5 mm) Dia. Solid Titanium Tip

Catalog No. 0-120-0013
3/4" (19.1 mm) Dia. Solid Titanium Tip

Catalog No. 0-120-0015
1" (25.4mm) Dia. Solid Titanium Tip

Catalog No. 0-120-0019
Cup tip, 250 ml

Catalog No. 0-120-0027
Continuous Flow Chamber

Accessory Tips

A 5/32" (4.0 mm) diameter Stepped Micro Tip and 3/8" (9.5 mm) diameter Solid Tip facilitates processing small volume samples and can be used with narrow neck vessels. These tips are particularly useful for difficult cells because the intensity is up to five times that of the 3/4" (19.1 mm) Solid Tip.

Cup Tips

This is used to process contents of sealed microtubes, vials or ampoules. Samples can also be processed by placing the sample in a beaker, and the beaker is suspended in the water filled cup tip.

SONABOX™ II - Sound Abating Enclosure (Optional)

The SONABOX™ II reduces cavitational sound emitted during processing when used in conjunction with the Model 150 VT Ultrasonic Homogenizer. These harmonics are produced by the vessel walls and fluid surface and can be disturbing with extended operation. The clear plexiglass door permits viewing of the sample while protecting the operator against accidental splashing. An access port for tubing is also provided for use with the cup tips and continuous flow chamber.

Continuous Flow Chamber

This chamber permits continuous processing of liquids and is designed for emulsifying and homogenizing applications. The continuous flow chamber may be sealed in a closed system when mounted so that infectious materials can be used. It is equipped with a water flow-through jacket to enable the temperature of the processed solution to be maintained at a desired level.

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WARNING TO ENSURE CORRECT USAGE, READ CORRESPONDING MANUALS CAREFULLY BEFORE USING EQUIPMENT.

March 2007, Revision 8